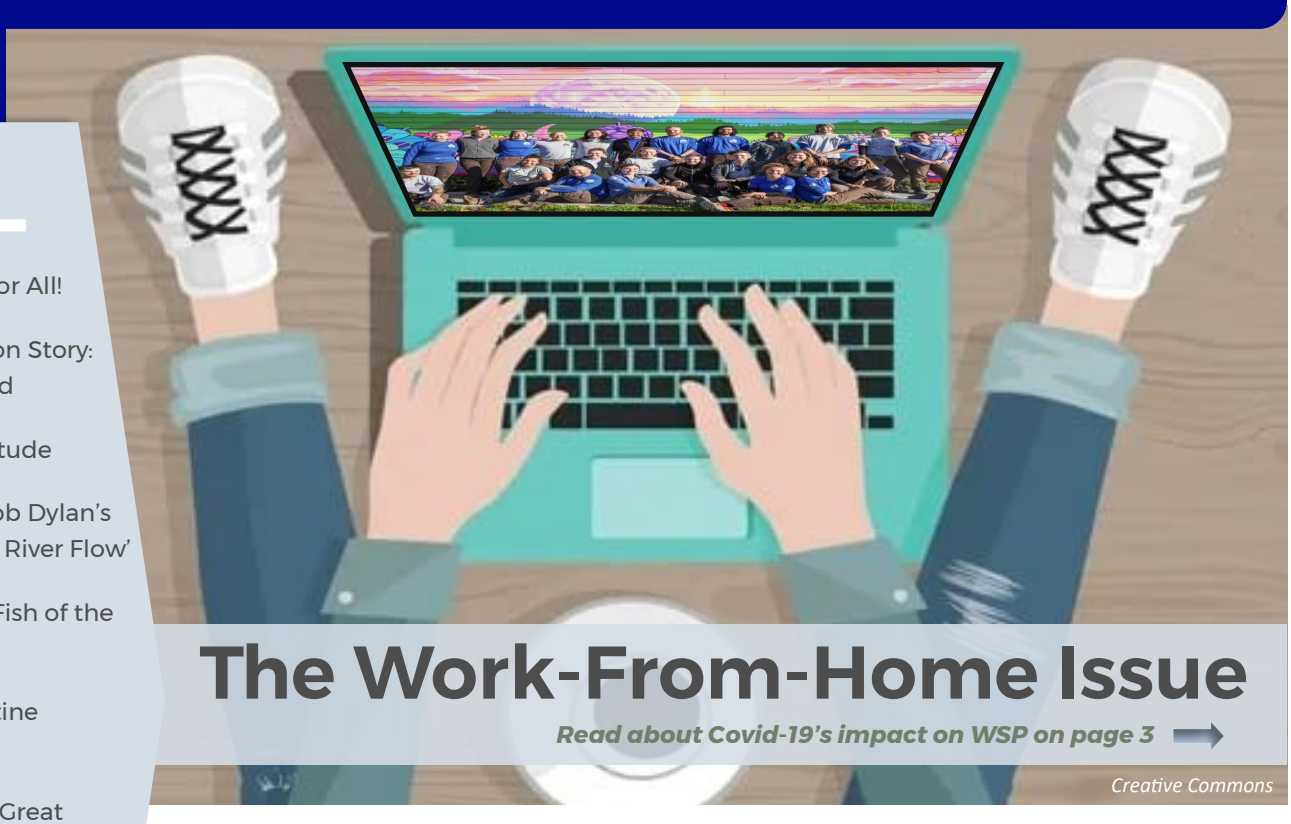
YEAR 26, DISTRICT A VOLUME 26, ISSUE 3

TRIBUTARY TRIBUNE

Stories and Art by Corpsmembers of the California Conservation Corps Watershed Stewards Program, in partnership with AmeriCorps



The Work-From-Home Issue

Read about Covid-19's impact on WSP on page 3

Creative Commons

In this Issue

A Lesson from One of Nature's Unique Arrangements: *How Soil Building Fungi and Determined Fish Help Redwoods Reach Incredible Heights*

Alec Brown, Serving at CDFW Arcata

For me, the forest is a place of wonder, meditation, and contemplation. I step into a forest and I feel its spirit, everything working together in harmony. This, of course, is subjective; the way I view the world around me. The unobjectionable truth, however, is that science has only scratched the surface regarding the myriad interactions that occur within nature. This is due to limitations in reductionist Western science: picking apart individual processes despite knowing nothing happens in isolation.

Interconnectedness is not new, but it isn't openly embraced by many contemporary industry leaders, policymakers, or researchers. Serving at CDFW Arcata has given me a unique lens into

Continue on page 4

A program of the California Conservation Corps, WSP is one of the most productive programs for future employment in natural resources. WSP is administered by California-Volunteers, the Office of the Governor and sponsored by the Corporation for National and Community Service and the California Department of Fish and Wildlife.

About the Watershed Stewards Program

Since 1994, the Watershed Stewards Program (WSP) has been engaged in comprehensive, community-based, watershed restoration and education throughout coastal California.

WSP was created in 1994 by California Department of Fish and Wildlife (CDFW) biologists, educators, and the California Conservation Corps to fill critical gaps in scientific data collection, in-stream restoration, and watershed education. In collaboration with landowners, tribal communities, teachers, community members, nonprofit organizations, and government agencies, WSP works to revitalize watersheds that contain endangered and threatened salmonid species (Chinook Salmon, Coho Salmon, and Steelhead Trout) by using state-of-the-art data collection and watershed restoration techniques. WSP also engages Corpsmembers in education, outreach, and volunteer recruitment efforts to increase the capacity of partner organizations. WSP currently has Corpsmembers working from the Oregon border to the Santa Monica Mountains.

Fish Passage for All!

Emma Sevier, Serving at CDFW Arcata

California waterways have been choked, diked, and dammed at the peril of anadromous fish, cutting off historic migratory corridors between freshwater ecosystems and the sea. But conservationists work hard to remove barriers and build passageways, primarily aimed at restoring routes for federally listed endangered salmonid species such as Coho salmon (*Oncorhynchus kisutch*), chinook salmon (*O. tshawytscha*) and steelhead (*O. mykiss*).

Unfortunately, many fish passages designed for charismatic salmonid species serve as impediments to Pacific Lamprey (*Entosphenus tridentatus*), an anadromous, parasitic fish species native to the Pacific Coast.

Lamprey navigate waterways differently than salmonids, undulating their bodies or using their disc-like suckers to attach to a surface and then propel themselves forward through "burst and detach" locomotion. Though they're not the friendliest looking fish, Lamprey provide valuable ecological roles as sediment engineers, bioturbators, and transporters of marine nutrients.

The high velocity and turbulent features associated with salmon fishways inhibit lamprey passage, where steep corners and sharp edges of traditional fish ladders prevent suction, forcing lamprey off the climbing surface. In essence, our efforts to reconnect vital salmon populations are shutting out culturally and ecologically significant lamprey.

This is one of the paradoxes and difficulties all too abundant in conservation efforts. How do we adequately manage an increasingly altered landscape to serve the diverse needs of species? Fortunately, agencies such as the California Fish Passage Forum are working to generate fish passage solutions which serve lamprey and salmon alike. Many fish ladders are being retrofitted with adaptations sufficient for lamprey passage, generating the low flow environments and smooth wetted surfaces necessary for lamprey to navigate the waterway.

> ***"How do we adequately manage an increasingly altered landscape to serve the diverse needs of species?"***

Just as we must create alternative transportation and accommodation strategies in the human landscape, we must translate this philosophy into the world of fish passage. While many other anadromous species such as cutthroat, stickleback, and smelt are able to navigate fishways designed for salmonids, lamprey demand more specialized engineering. As we restore connectivity and work to open up historic migratory corridors, we must promote solutions which accommodate all of California's anadromous species, salmonids and lamprey alike!

References:

California Department of Fish and Widlife. "Pacific Lamprey." https://www.wildlife.ca.gov/Conservation/Fishes/Pacific-Lamprey

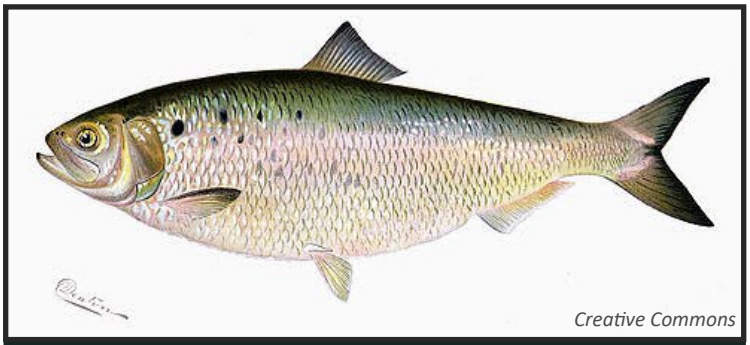
California Fish Habitat Forum. "RECOMMENDATIONS TO IMPROVE PACIFIC LAMPREY PASSAGE AT FISHWAYS" https://www.cafishpassageforum.org/lamprey

An Introduction Story: *American Shad*

Camden Esch, Serving at CDFW Yreka

Prior to European settlers in the West Coast of North America there was an abundance of cold-water fish species such as salmonids, sturgeon and trout but none of the warm water "game fish" species we commonly see today.

That all changed in the late 1800s when the "Father of Fish Culture", Seth Green, transported thousands of American Shad also known as *Alosa sapidissima* fry fish across the country on the transcontinental railway. They were packed into metal milk jugs and came from the first ever fish hatchery in North America on Hudson River, NY. Green supplemented the jugs with river water along the way, often lacking in adequate water quantity or quality, especially in desert stretches. Despite these difficulties, on June 29, 1871, ten thousand American Shad fry fish successfully arrived in Tehama, California and were stocked in the Sacramento River that night.



American Shad

Shortly after the establishment of the American Shad in the Sacramento, and later Columbia and Willamette Rivers, came the introduction of more gamefish species. The Smallmouth bass (*Micropterus dolomieu*) from New York to Napa in 1874, and later to reservoirs throughout Northern California. Largemouth bass (*M. salmoides*) and later Florida Largemouth Bass (*M. floridanus*) were introduced to Southern & Northern California from Illinois in 1891. Yellow Perch (*Perca flavescens*) introduction occurred throughout California including Klamath, Feather, Sacramento, Yuba Rivers as well as other systems from 1873-2000s. Crappie and Bluegill came in the early 1900s and other introductions followed. ***Continue on page 5***

Serving in Solitude

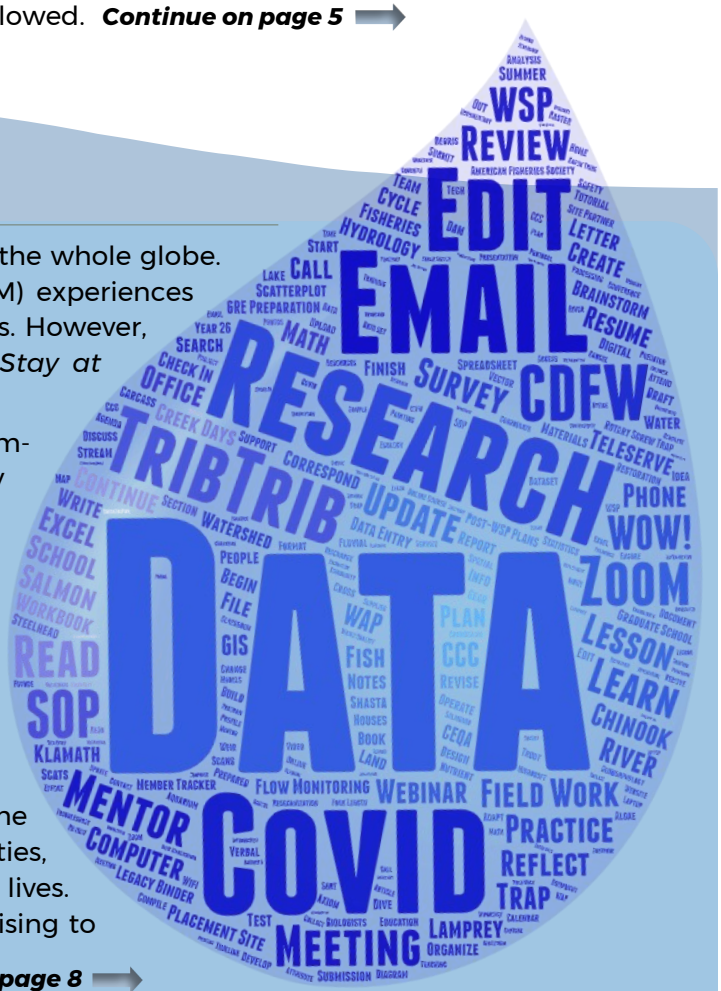
Nadia Lynn, Team Leader serving at WSP Fortuna

It's no secret that the Covid-19 pandemic has shaken up the whole globe. As a diverse, state-wide program, WSP Corpsmembers' (CM) experiences with Covid-19 have been as varied as government responses. However, all CMs have been teleserving since or before California's *Stay at Home* order went into effect on March 19.

"We're so fortunate because almost all of our Corpsmembers have found plenty to do— sites are still staying really connected with their Corpsmembers and filling their plates," said Zia Schatz, WSP Program Manager.

There's certainly still service to be done. CMs have continued monitoring efforts, expanded education and outreach to digital platforms, and have even done some field work, following strict safety protocols. *The word cloud at right highlights the work District A CMs have reported in their daily teleserve trackers.*

However, Schatz notes, "It's not like there's no strain." Some CMs had to move away from their placement site communities, while others are dealing with Covid fears in their personal lives. "But," she says, "I'm really proud of our Corpsmembers for rising to the challenges."



See WSP & Covid-19 By the Numbers on page 8

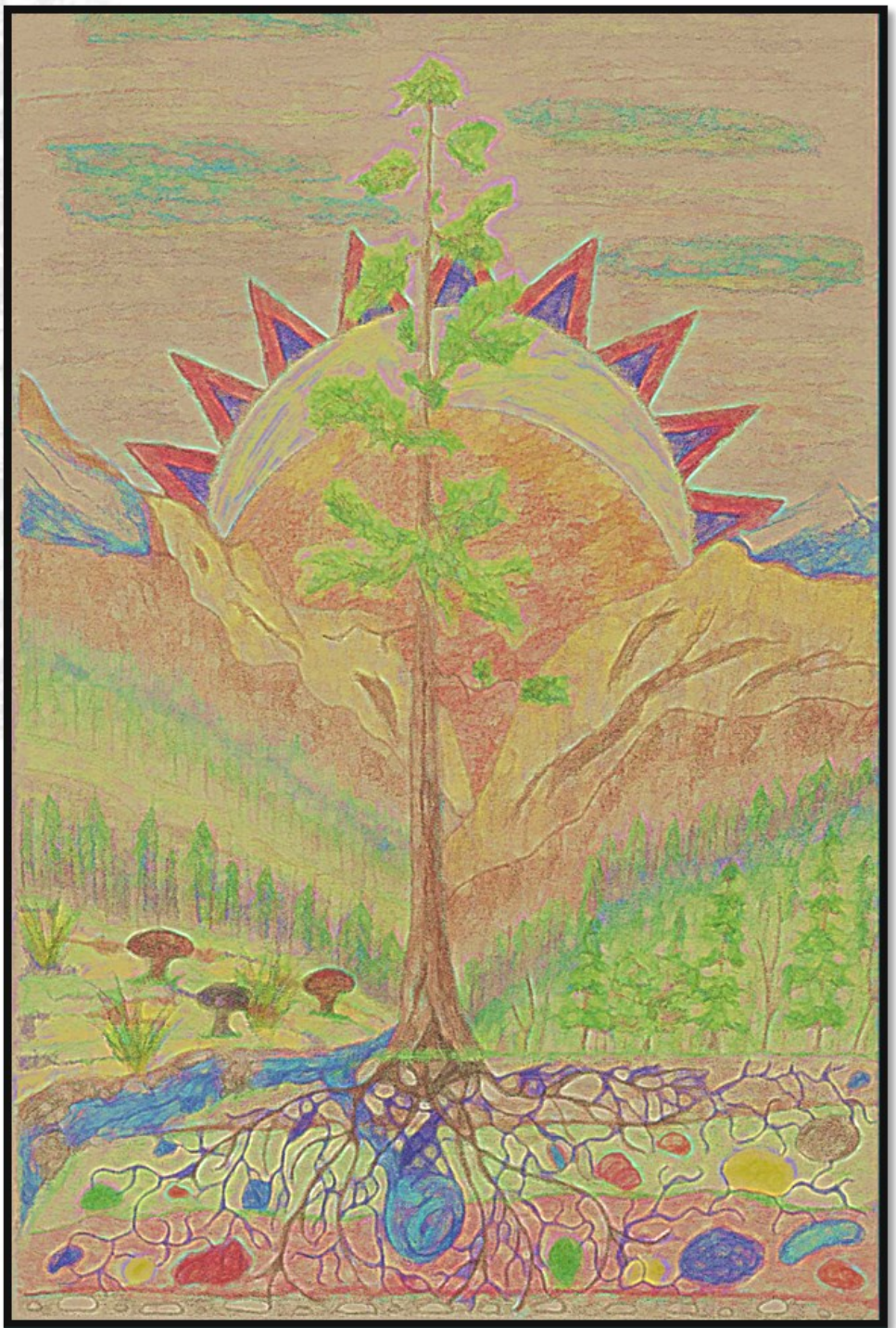
A Lesson from One of Nature's Unique Arrangements — *Continued from page 1*

interconnectedness by exploring some of the last remaining intact old growth Redwood stands in California. The inextricable bond connecting all life forms is more apparent than ever in our world distraught with anthropogenic climate change, loss of biodiversity, and habitat loss.

Measuring ecological interrelatedness is no simple task. To start, we must view individual components as part of the holistic function of an entire ecosystem. My love for botany and mycology coupled with my recent induction into fisheries through WSP has reinforced the notion that fish, forests, and fungi have forged a fascinating survival strategy. As salmon directly satiate the hunger of predators and scavengers with their marine derived mass, their remains are scattered through hectares of hyphal highways, nourishing the native fauna. In essence, fish feed forests. And yet, the fish need forests, too. In life, the trees shelter and cool spawning and rearing habitats, and in death, their massive debris creates deep pools and complex currents which help salmon breathe. The health of one is intimately tied to all others in this system.

Whether you're a proponent of vitalism or postulate that pure economic transactions guide nature's interfacing is irrelevant. In all its complexity, nature functions well because its constituents, big and small, mobile and still, have harmonized. Much like a river anastomoses through a valley, life forms are intertwined in delicate but enduring balance.

Once I understood the unfolding of these events, I could see forest through the trees. In other words, a multitude of well-timed, finely tuned processes happening simultaneously allows the forest and everything in it to thrive. One actor is not more important than the next; they are all reliant on one another, all individuals playing their note in a grand symphony of life. I am grateful to the precision and coordination involved in nature, less so when it comes to humanity's shortfalls in the coveted equation. We have a lot to learn about harmony with each other and nature alike. We should strive to restore resilience and functionality to our precious biosphere, not only for the existential value inherent in all life forms, but also for the sake of our own posterity. If society can take something away from the extraordinary network that is coastal redwood forest ecology, it should be that harmony is not so far-fetched; in fact, nature dictates otherwise.



Pencil Drawing and Essay by Alec Brown

A parody of Bob Dylan's

'Watching the River Flow'

Ryan Shorrow
Serving at Six Rivers National Forest

Woke up today, it was spring
Winters come and gone on its way
Dogwood blossoms peekin' in my window
And I'm still at home in my PJ's
So I hit the Salmon River Trail by noon
Out to where the ducks are swimmin' slow
To sit down on these mine tailings
And watch the river flow

Sometimes I wish I could visit the city
Just to see some different land
The morning fog blanketing the redwood tops
And the one I love so close at hand
I hope the pandemic is over by July
I know right where I would go
But right now I'll just sit here so contentedly
And watch the river flow

Oh out here there's green on just about everything, yeah
And there ain't a cloud in the sky
Why only yesterday I saw an Osprey
Who was doing his mating cry
Oh and this old river keeps on rollin', though
With the summer fish running up through that freshly melted snow
And as the mosquitos buzz, I'll just sit here
And watch the river flow

New flora and fauna everywhere you look
Makes you want to stop and read a naturalist book
Why only yesterday I saw a fish in the creek
That was a Spring Chinook
But this ol' river keeps on rollin', though
Out to the Klamath and to its end on the coast
And as long as it does I'll just sit here
And watch the river flow
Watch the river flow
Watchin' the river flow
Maybe measure the river's flow
But for now I'll sit down on these mine tailings
And watch the river flow

An Introduction Story: American Shad

Continued from page 3

The American Shad, or White Shad at the time, was introduced as a staple food, fishing source and innovation to improve life in the west. Much like Pacific Salmon species, Pacific Lamprey, Striper Bass and closely related herring species, the American Shad, is an anadromous fish. In other words, the American Shad's life cycle is marked by a journey from its freshwater place of birth to the ocean and back again. Many shad are *iteroparous*, meaning they may complete the spawning or reproductive process more than once. American shad spawns in the springtime and is known to inhabit deep and brackish waters.

Today, the American Shad can be found on the West coast from Baja California, Mexico up to southern parts of Alaska, as well as sporadically in lakes and bodies of water throughout the United States. In Russia, the Kamchatka Peninsula west of the Bering Sea contains a naturally colonized population of American Shad in addition to all six species of Pacific Salmon. On the East Coast their Native range spanned from Florida to Canada, before being severely depleted in the early 1900s due to overfishing, pollution and habitat fragmentation from dredging, grist mills and dams.

The story of the American Shad is one of relevance today, as we grapple with ecological consequences of invasive species. For better or worse, the American Shad has transformed North American fisheries by making greater species diversity of warm water fishes a permanent fixture in the underwater landscape of our lakes, ponds and watersheds. This is due to the hardiness of shad to establish, be a food source for piscivorous fishes and as a new model for conservation and fisheries ethic at the time. To this day many of us still witness the magnificent sometimes millions full runs of American shad all over the West and it is not lost how they got there.

White Shad, Herrings, Sprats or Garnies, Anchovy, & White Bait

Anadromous Fish of the Salmon River

Nathan McCanne, Serving at Six Rivers National Forest

During my two service terms with the Watershed Stewards Program, I have been lucky enough to dive the Salmon river, a Tributary to the Klamath River. The Salmon River has a handful of interesting anadromous fish. An anadromous fish is one that spends part of its life in the ocean, and the other part in fresh water. These are the anadromous fish that visit the Salmon River.

Photo Credit: NOAA Fisheries

Steelhead

Oncorhynchus mykiss

Steelhead are the anadromous version of rainbow trout. They are one of the only salmonids that can make multiple trips to the ocean, and spawn several times. They can spend up to seven years in freshwater and can stay out in the ocean for up to three years. Steelhead, coho, and chinook all lay their eggs in "redds" which are nest like structures in the rocks. They bury their eggs there to protect them from predators.

Photo Credit: Paul Vecsei/Engbretson Underwater Photography

Chinook "King" Salmon

Oncorhynchus tshawytscha

Chinook, also known as king salmon, are the largest salmon. They can grow to be nearly five feet long and up to 129 pounds! In the Salmon River they spawn in the fall which is when many of them return, but there is a run of them which comes in the spring, and waits until spawning season. The fall and spring run chinook are classified as two distinct populations, and the spring run are being reviewed as an endangered species candidate.

Photo Credit: Jeremy Monroe, Freshwaters Illustrated

Pacific Lamprey

Entosphenus tridentatus

Pacific lamprey are the only anadromous species of the many lamprey in the Salmon River. After hatching, they live in sandy substrate on river bars for three to seven years as filter feeders, then they make their way to the ocean where they can stay for one to three years. Once there, they feed on ocean fish by sucking their blood, becoming much larger than other lamprey. They migrate to freshwater when they are 15-25 inches, often "riding" salmon upstream to get back to their spawning grounds. Pacific lamprey lay their eggs in small circular redds.

Continue on page 7

Covid Quarantine Companion *(Match Made by AmeriCorps)*

Zack Pattek, Serving at the Watershed Research and Training Center

On National Service Days (NSDs), Watershed Stewards Program (WSP) Corpsmembers have the opportunity to serve their community beyond the scope of watershed restoration. Each year, Corpsmembers spend at least one day trading their waders for kitchen smocks or garden gloves as they assist at places like homeless shelters and community gardens.

As a WSP Corpsmember currently serving the Watershed Research and Training Center in Hayfork, I used the opportunity of the recent NSD to volunteer at the Trinity County Animal Shelter. The shelter provides rescue, foster, and adoption programs to the rural and remote communities of Trinity County. With a large amount of animals and a small amount of staff, my role changing water bowls and sweeping floors felt useful. After helping with the cleaning I took Chip, a 10 month old lab-mix who had recently been found on a roadside, into the yard for some much

Continue on page 7

Anadromous Fish of the Salmon River — *Continued from page 6*

Photo Credit: NOAA Fisheries

Coho "Silver" Salmon

Oncorhynchus kisutch

Coho are an endangered species in California, but they are doing well in Alaska. They are smaller than the chinook. They sit around 24-33 inches and 8-12 pounds. They return to the river to spawn in the wintertime, which is after the chinook. Coho and chinook are semelparous which means they die after they spawn.

Photo Credit: The Nature Conservancy

American Shad

Alosa sapidissima

American shad come to the Salmon River in the summer to spawn. They spawn in the open water column as opposed to the smaller, colder tributaries salmonids tend to spawn in, and females can lay up to 300,000 eggs! The eggs will hatch after three to six days and the larvae will take shelter near the river's shore. They migrate to the ocean when they are between two and three centimeters.

Photo Credit: Dan W. Gotshall

Green Sturgeon

Acipenser medirostris

Green sturgeon have been in North America for the last 200 million years! They can live up to 70 years old, weigh 350 pounds, and be six and a half feet long. They sexually mature around 15 years old after which they can spawn every three to five years. Females can lay up to 242,000 eggs. Green sturgeon are only found in three watersheds on the West Coast of North America: the Klamath, Sacramento, and Rouge River watersheds.

References:

Dill, KC (2011). *Alosa Sapidissima (Wilson 1811): American Shad.* University of Washington. http://depts.washington.edu/oldenlab/wordpress/wp-content/uploads/2013/02/Alosa-Sapidissima_Dill.pdf

Moser, M. L et al. (2016). *Biology and life history of Green Sturgeon (Acipenser medirostris Ayres, 1854): state of the science.* Applied Ichthyology, 32, 67-86. doi: 10.1111/jai.13238

NOAA Fisheries. (n.d.) *Chinook Salmon.* National Oceanic and Atmospheric Administration. https://www.fisheries.noaa.gov/species/chinook-salmon

NOAA Fisheries. (n.d.) *Coho Salmon.* National Oceanic and Atmospheric Administration. https://www.fisheries.noaa.gov/species/coho-salmon

NOAA Fisheries. (n.d.) *Green Sturgeon.* National Oceanic and Atmospheric Administration. https://www.fisheries.noaa.gov/species/green-sturgeon

Oregon Fish and Wildlife Service. (2019). *Pacific Lamprey.* U.S. Fish and Wildlife Service. https://www.fws.gov/oregonfwo/articles.cfm?id=149489457

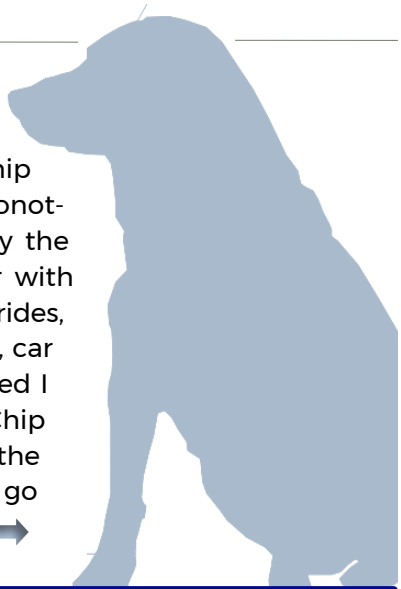
U.S. Fish and Wildlife Service. (n.d.). *Steelhead Trout.* U.S. Fish and Wildlife Service. https://www.fws.gov/fisheries/freshwater-fish-of-america/steelhead_trout.html

Covid Quarantine Companion — *Continued from page 6*

needed playtime for both of us. We played fetch and ran around in the afternoon sunlight. That day, I left Chip and other new friends at the animal shelter feeling grateful to have had the chance to contribute time to another organization fundamental to community health.

Then the Covid-19 pandemic quickly shifted life for all of us. The animal shelter had to close their doors to the public and WSP Corpsmembers were advised to work from home as much as possible. Not wanting Chip to stay alone in the shelter without volunteers stopping in to play, I was given permission to foster him. For three weeks, Chip and I enjoyed breaking up the monotony of self-isolation with walks by the lake, fetch in the yard, tug-o-war with his favorite rope toy, sunset car rides, and naps outside. With each walk, car ride, treat, cuddle, and stick fetched I watched the fear and shyness Chip carried from his life before the shelter leave him and a confident, go-lucky,

Continue on page 9



Tribute to the Great Chinook

Daniel Rinkenberg, Serving at CDFW Yreka

I am from the east and before moving to California, I had never seen a salmon in person. My knowledge of them consisted of the typical well-known facts about their anadromous life cycle and the return to their natal stream.

When I arrived to serve in Yreka, my first day quickly turned from paperwork to fieldwork. My Mentor took me directly to the Shasta River weir, where I had my first experience with Chinook salmon. I saw live fish running up stream and dead ones to collect data from. I was tasked with retrieving the carcasses. Immediately I could tell these were the largest fish I'd ever handled.

Soon after, I got to experience handling my first living adult Chinook. I reveled with my crew about how much of their strength remained despite traveling all the way up the Klamath to the Shasta river. It was October, and their deep olive-green scales were still in great condition and not degraded like they become later in the run.

I have never been much of an artist, but after my fiancé purchased some clear ornaments for painting on, there was only one thing I could think to paint. **This is my tribute to an animal that truly amazed me this year. The Chinook Salmon.**

WSP & Covid-19 *By the Numbers*

Through pandemic, WSP Corps-members keep serving America.

1,632 hours field work

2 pints of blood donated

13,211 hours served

152 Bags assembled at food banks

108 Meals served

*Data from teleserve trackers 3/14/20—5/10/20

Covid Quarantine Companion

Continued from page 7

typical puppy attitude grow in their place.

Chip was adopted by a family with a young child and a big yard, every dog's dream. When I saw them leave together, I again felt grateful to both the Watershed Stewards Program and the Trinity County Animal Shelter for leading me to the opportunity to pass the time in covid quarantine with a lovable lab-mix. This is just one example where the experiences that I've gained through my AmeriCorps service have benefited my life and the lives of others through hard times.

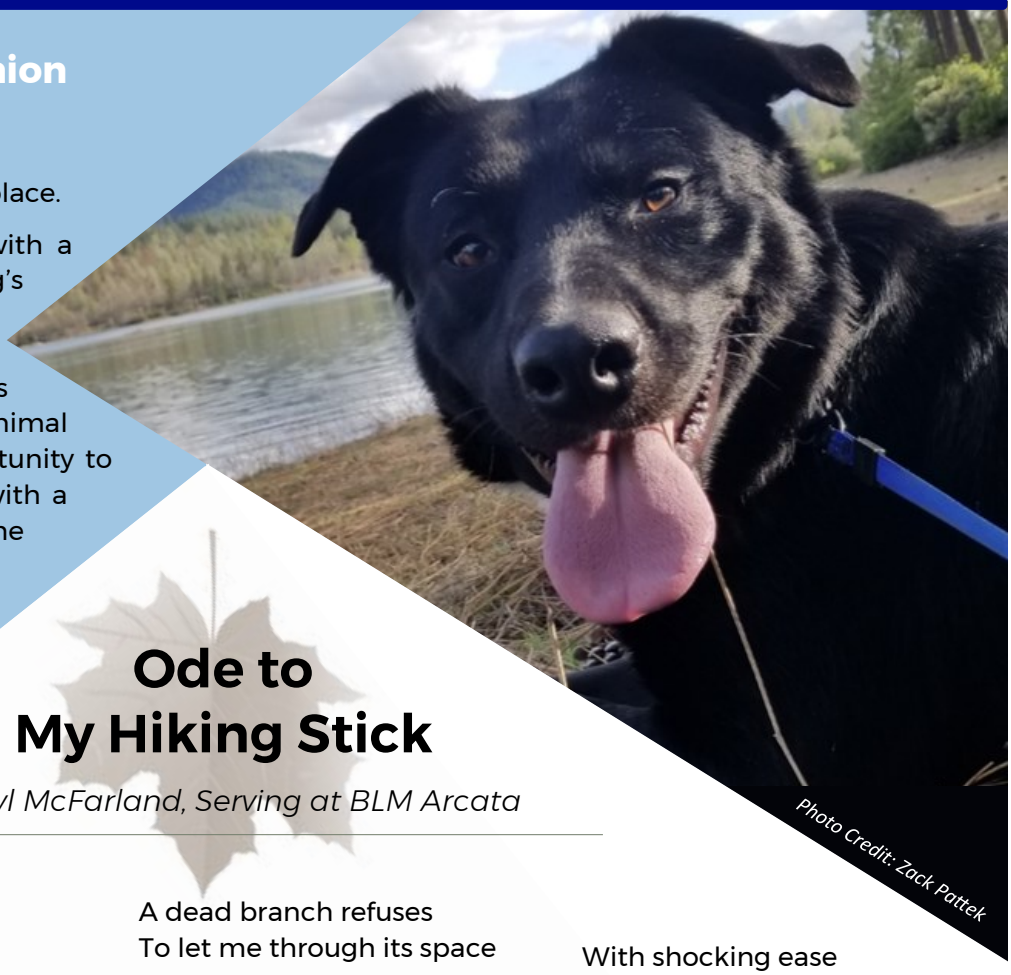


Photo Credit: Zack Pottek

Ode to My Hiking Stick

Lauryl McFarland, Serving at BLM Arcata

Full of confidence
Boasting with skill
I begin my survey
With a shin-splitting spill

A lifetime of walking
It doesn't matter
What the creek wants
Is me on a platter

Starting to think
I've bested the best
It spits me right out
Face down on my chest

The river just laughs
My site partner too
Waders take on water
As I bid pride adieu

With 10 frigid fingers
I wave warmth goodbye
Knowing my fleece
Will never get dry

Moving on upstream
Like a whip to the face
A dead branch refuses
To let me through its space

No way around it
I reach up in a fury
Tearing sticks down
I am this tree's jury

Limb in my hand
An idea so clear
I'll take a back seat
And let this branch steer

Me 5 foot 7
My branch 4 foot 2
With extra support
My legs feel brand new

No splintered betrayals
It's smooth as can be
This branch knows the river
And swiftly guides me

Me and my branch
Across turbid streams
Slick rocks and swift flows
Are no match for this team

With shocking ease
Gliding over each snag
I excitedly spot
A fresh carcass to tag

Warming up at last
Barely made it alive
To see a Chinook
With my very own eyes

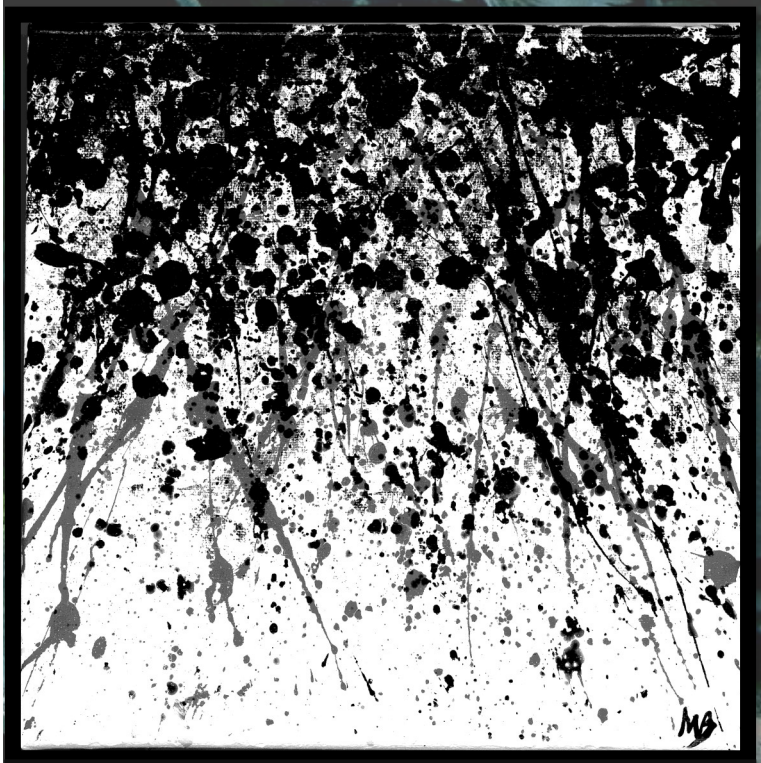
This river once raged
Flowed mighty and bold
It ran with more fish
Than its creeks could hold

Charging ahead
More ready than ever
I take on the stream
My resolve will not sever

To help these great fish
My pace won't let-up
With my branch at my side
I'll never give-up

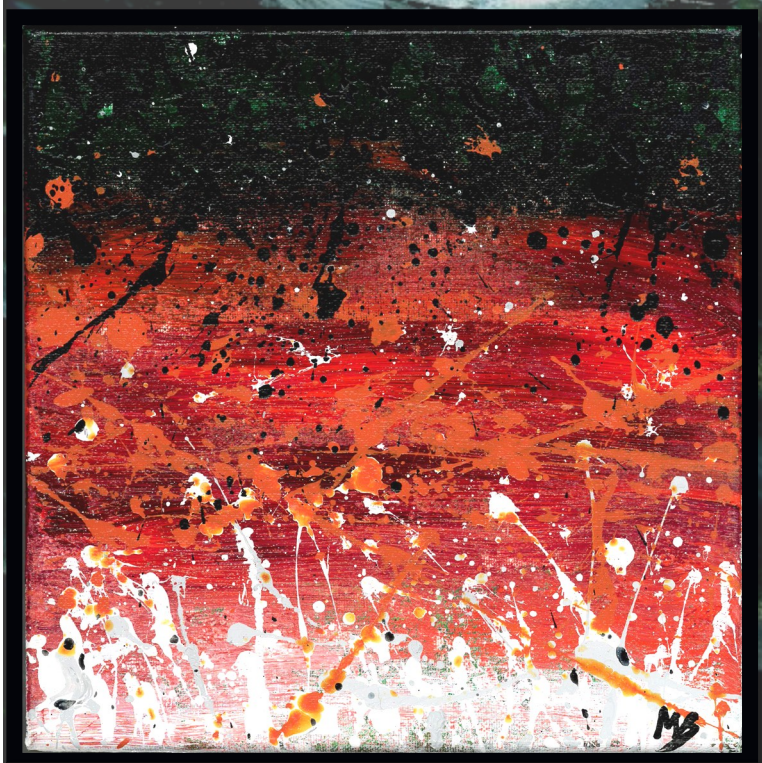
The Coho Lifecycle in Feelings and Movement

Meagan Burger, Serving at Redwood National and State Parks



The Spawner

As a second-year Corpsmember with the Watershed Stewards Program, I am privileged to continue working with native salmonid species throughout Humboldt County. Over each term I have been able to work closely with Coho salmon and their habitats; from Northern Mendocino County creeks, miles from any reception and paved roads, north to the bustling trails of Redwood National and State Parks. I've delighted in witnessing firsthand salmonid lifecycle stages and learned how to identify different species within these stages. Their spots, patterns, and lines are extraordinarily vibrant and yet fleeting, forever changing with time. Each individual, a distinct entity. I wanted to capture these moments in time and put them not just into images but to express the feelings and movement. I chose a surrealist style to represent three stages of the Coho lifecycle by representing their external anatomy, their beautiful colors and markings. I wanted to convey the connective pattern used in identification for each lifecycle stage, while giving it the uniqueness and non-conformity of an individual.



The Adult

The Fry

Alumni Spotlight : Andrea Garcia

Nadia Lynn, Team Leader serving at WSP Fortuna

As a Crew Supervisor at the Fortuna California Conservation Corps center, Andrea Garcia brings a breadth of natural resource experience from in and out of the corps. "I'm really passionate about... opening up Corpsmembers eyes to natural resources and the world of conservation," she says. "It isn't some out there, unreachable thing— it's here and you can access it."

It was through her three years as a Corpsmember (first in Pomona, then Fortuna) that she first learned of the Watershed Stewards Program. But she didn't join WSP right away, "there was a gap," she says, "I finished up the C's and felt ready to continue my education." So Garcia attended Humboldt State University, where she studied ecology. She also worked with the U.S. Forest Service in Oregon and as a YCC Crew Leader for Humboldt Bay National Wildlife Refuge.

But her path led her back to the CCC, where she served two terms with WSP, from 2011 to 2013. She served both terms with CDFW in Fortuna. "Fisheries is a very small community, so you get to see the same people over and over so it becomes easier to obtain... references, information," she says.

Garcia stayed in the fisheries community for a while following WSP, taking a job as a Scientific Aide with CDFW, and then with Humboldt County Office of Education's Steelhead in the Classroom program. But "around that time, I was ready to go back to the CCC's" where she continues work today as a Conservationist I.

What was your WSP Corpsmember experience like?

My WSP experience was both fun and challenging. I met some great people and was able to expand my physical limits with all the field work I did. It was also a great resumé builder that helped me get jobs with CDFW, Salmonid Restoration Federation, and the CCC.

Was there one experience that was particularly memorable? Why?

A particularly memorable experience was when I was getting trained to do snorkel surveys. It was my first time in a dry suit and the water was pretty dang cold. But it was also the first time I saw Coho and steelhead fry up close and personal. It was truly amazing.

What is your current title? What are your responsibilities in your current job?

I am currently a Conservationist I (Crew Supervisor) with the CCC. I have a wide array of responsibilities that encompass mentoring young adults in professional and personal skills, as well as completing natural resource projects for local agencies.

How did WSP help prepare you for the work you are currently doing?

WSP gave me practical experience with balancing multiple projects, especially since as WSP Corpsmembers we would be doing our field work, while planning classroom visits and volunteer projects. It taught me how to be more organized and it gave me a better idea of what communicating professionally means. WSP also taught me the importance of networking, which is an understated soft skill.

What is your favorite part of your job now?

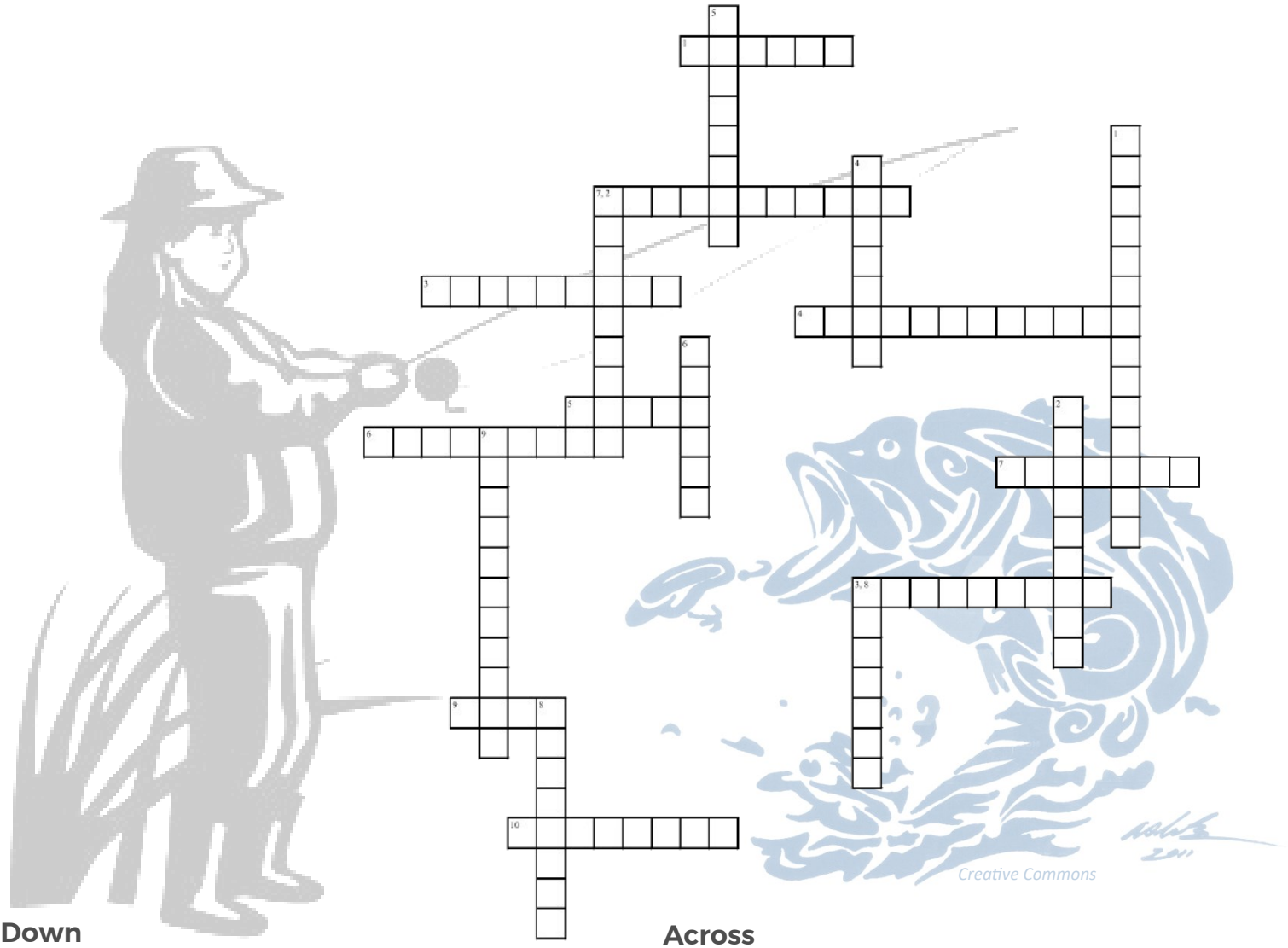
My favorite part of my job is being in a position to help young adults - whether I am teaching them about personal budgets or endangered species, about how to run power tools or about opportunities beyond the CCC. I just feel fortunate to be doing what I do.

Do you have any advice for current WSP Members?

My advice to current WSP members would be to embrace opportunities. Don't get caught up thinking that a certain task or working with a certain group is beneath you. We all have something to learn and something to teach. Being humble and patient can get you a lot further than you think.

Watershed Stewards Crossword Puzzle

Annette Carlson, Serving at Redwood National and State Parks



Down

1 Maintaining ecological balance by avoiding unrestricted use of natural resources

2 Term to describe organisms interacting with their environment, like a forest

3 A species of salmon which goes by the name 'King'

4 Name for the act of catching fish

5 Zone around a stream or river, made up of grasses, bushes, and trees

6 Small river that always has water in it

7 A rainbow trout that migrates from freshwater to saltwater and back again

8 When an organization reaches out for community members to volunteer their time

9 Returning an ecosystem to its original condition

Across

1 A species of riparian tree with narrow leaves

2 The act of looking after something for a long period of time

3 To give your time to a project or cause without being paid

4 To preserve a particular natural resource

5 A molecule made up of oxygen and hydrogen

6 A basin that drains water from the area between ridges

7 The gradual degradation and movement of land by water, wind, and other natural agents

8 A group of people that live in the same place

9 A species of salmon, also known as Silvers

10 A combined action of a group of people

Answers on page 13

From Top Left: **Annette Carlson** and **Ryan Shorrow** walking in Fortuna *(credit: Sienna Streamfellow)*; **Nathan McCanne** removing the otolith from salmon carcass *(credit: Sienna Streamfellow)*; **Zack Pattek** holding chinook spawner *(credit: Logan McDiffit)*; California Newt *(credit: Sienna Streamfellow)*; **Lauryl McFarland** and **Alec Brown** dissect salmon at Regional Training *(credit: Sienna Streamfellow)*; Fall in Hayfork *(credit: Sienna Streamfellow)*; District A Corpsmembers at Orientation; **Logan McDiffit** holding salmon *(credit: Zack Pattek)*; **Meagan Burger** holding carcass head *(credit: Meagan Burger)*; CMs and friends at Hayfork WAP; Klamath River in Winter *(credit: Ryan Shorrow)*; Prairie Creek *(credit: Meagan Burger)*; **Camden Esch** and **Daniel Rinkenberg** at Orientation; **Ryan Shorrow** planting trees in Hayfork; **Emma Sevier** and **Alec Brown** in an Arcata pasture.

Dear District A,

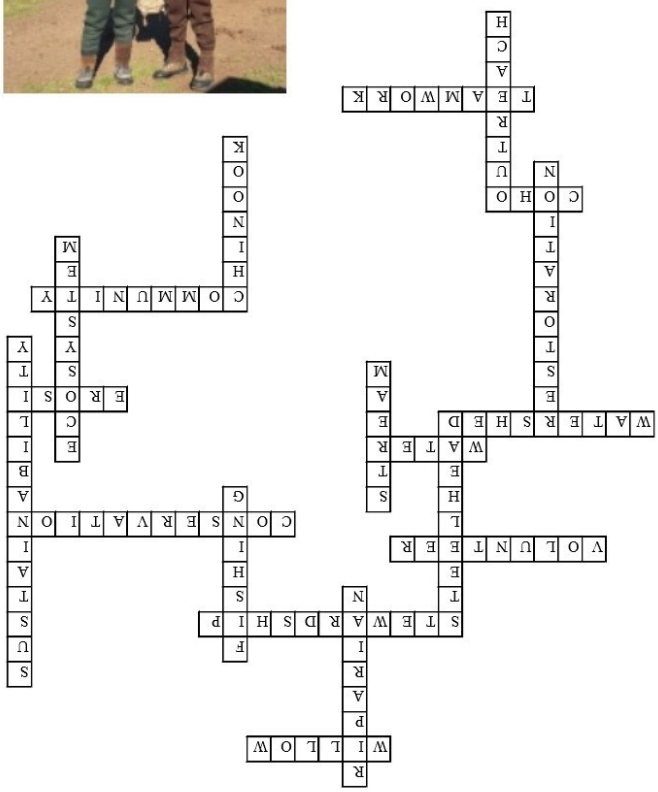
I miss you. The pandemic is shaping our term in a way none of us could have predicted. I am disappointed that I will miss all of the chances to connect. I miss tagging along on field work adventures as you excitedly babble about your Placement Site. I miss watching your eyes light up when you spot a fish, or a shell, or a salamander, or a mushroom. I miss hearing your sighs of proud relief at the end of your WAPs. I miss the way your passion for science fills the air around you when you talk about it. I miss talks around the table, music requests for Alexa, camping for Creek Days and Fish Fair,

All the almost's, and could've-been's we are all missing. Our term is different, but I am still grateful to be in it. Grateful to have a team of resilient peers. Grateful to have meaningful work to do. And grateful to know that all of our lives were at once aligned, changed, connected.

Best Wishes,

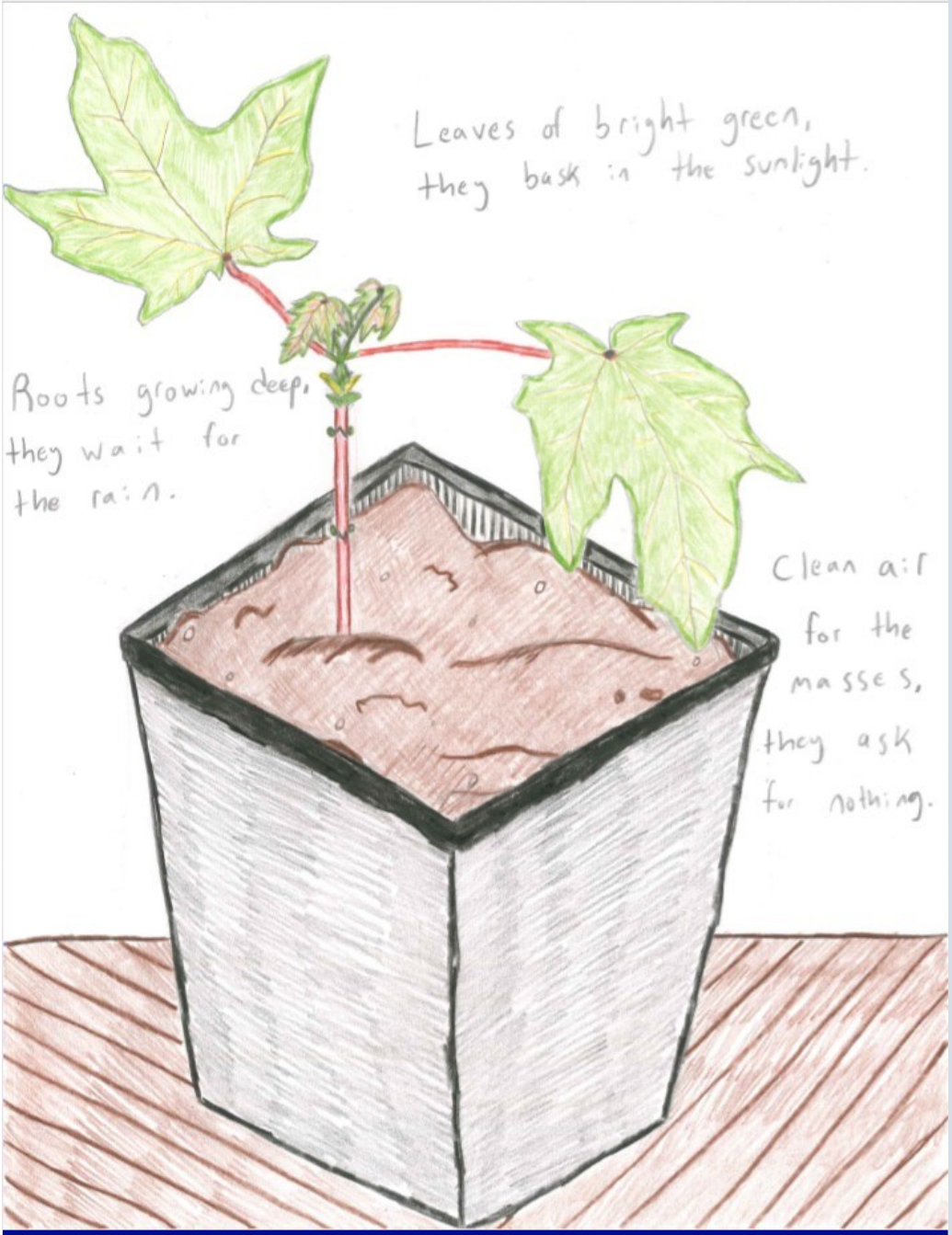
Nadia

Nadia Lynn Team Leader



The Giving Seed

Logan McDiffit, Serving at the Watershed Research & Training Center



Become a WSP Corpsmember! Learn more about the program and find our application at: ccc.ca.gov/watershed-stewards-program/

Contact Us

WSP Region I Office
1455 Sandy Prairie Ct, Suite C
Fortuna, CA 95540
(707) 725-8601

WSP Region II Office
PO Box 1380
San Luis Obispo, CA 93406
(805) 542-8461

wsp.info@ccc.ca.gov

Find out more about the program on our website:
ccc.ca.gov/watershed-stewards-program/

Our Mission

The Watershed Stewards Program's (WSP) mission is to conserve, restore, and enhance anadromous watersheds for future generations by linking education with high quality scientific practices.

WSP Staff

Program Manager:
Zia Schatz
Region I Program Coordinator:
Greg Poulton
Region II Program Coordinator:
Jody Weseman
Office Manager:
Robert Sataua
Office Assistant:
Trista Dowdy

Credits

Editor:
Nadia Lynn
District A Team Leader

This material is based upon work administered by CaliforniaVolunteers, the Office of the Governor and sponsored by the Corporation for National and Community Service and the California Department of Fish and Wildlife.